

**IMPERIAL VALLEY COLLEGE
PROGRAM REVIEW COMPLIANCE FORM AND REQUEST FOR RESOURCES**

DEPARTMENT SME - Gen. Sci

ACADEMIC YR. 12-13

Comprehensive Program Review

Annual Assessment

Request for Resources (check all that apply)

When your Program Review data as well as your SLO/SAO assessment findings in order to update to your Comprehensive Program Review, all changes to area needs and subsequent requests for additional resources must be reported at this time.

If you are scheduled for a Comprehensive Program Review all forms are to be completed and submitted to the appropriate Dean/VP. If you are only doing an annual Program Review Assessment only and have no changes to area needs, sign below and submit this form to appropriate Dean/VP. If you have been changed as a result of your annual assessment of program review data, please complete the appropriate Request for Resource form and submit to appropriate Dean/VP.



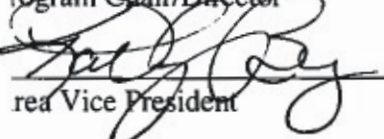
Program Chair/Director

3/1/13

Date



Signature of Area Dean



Area Vice President

3-1-13

Date

Submit the following documents to this Program Review Compliance form if you are requesting additional resources:

- Comprehensive Program Review
- Assessment Form
- Assessments
- Resources Forms

Academic Program Evaluation – General Science
Division – H & S
Department - SME

GENERAL SCIENCE – ASSOCIATE DEGREE

REQUIRED COURSES:

Select one course from the following:

ANTH 100, BIOL 100, 120, 122, 140, 150, 180, 182

Select one course from the following:

ASTR 100, CHEM 100, 160, ENVS/AG 110, GEOG 100, GEOL 100, 110, PHSC 110

Select remaining units (to reach 18 units) from:

BIOL 200, 202, 204, 206, 220, CHEM 200, 202, 204, 206, CS 220

MATH 190, 192, 194, 210, PHYS 200, 202, 204

PROGRAM COMPLETION

Number of certificates completed Between Fall 2009 and Spring 2012	Number of Associate Degrees Completed Between Fall 2009 and Spring 2012
N/A	162

GENERAL SCIENCE COURSES - ENROLLMENT, FILL RATE & WAIT LISTS

COURSES	Course Cap	Enrollment - # Sections						Fill Rate						Wait List 1/8/2013
		F 09	S 10	F 10	S 11	F 11	S 12	F 09	S 10	F 10	S 11	F 11	S 12	S 13
ANTH 100	40	151 - 3	150 - 3	150 - 3	158 - 3	140 - 3	132 - 3	125.8%	125.0%	125.0%	131.7%	116.7%	110.0%	2
ASTR 100	35	146 - 4	144 - 4	145 - 4	136 - 4	130 - 4	117 - 4	104.29%	102.86%	103.57%	97.14%	92.86%	83.57%	
BIOL 100	25	289 - 10	298 - 12	265 - 10	245 - 9	280 - 10	232 - 8	120.42%	112.80%	110.42%	122.50%	112.00%	116.00%	104
BIOL 120	25				26 - 1						104%		84%	1
BIOL 122	25		15 - 1				21 - 1		62.50%				84.00%	
BIOL 140	35		34 - 1		34 - 1		25 - 1		97.14%		97.14%		71.43%	
BIOL 150	35		28 - 1		27 - 1		18 - 1		80%		77.14%		51.43%	2
BIOL 180	25	27 - 1		26 - 1		25 - 1		112.5%		108.33%		100%		
BIOL 182	25		20 - 1		25 - 1		25 - 1		83.3%		100%		100%	12
BIOL 200	25	56 - 2	46 - 2	46 - 2	49 - 2	50 - 2	48 - 2	116.67%	95.83%	95.83%	98%	100%	96%	14
BIOL 202	25	26 - 1	25 - 1	51 - 2	23 - 1	26 - 1	48 - 2	104.17%	104.17%	108.33%	92%	104%	96%	15
BIOL 204	25	50 - 2	49 - 2	48 - 2	49 - 2	50 - 2	48 - 2	91.67%	102.08%	100%	98%	100%	96%	36
BIOL 206	25	23 - 1	23 - 1	27 - 1	23 - 1	23 - 1	25 - 1	112.50%	95.83%	112.50%	92%	92%	100%	4
BIOL 220	25	28 - 1	50 - 2	53 - 2	58 - 2	54 - 2	74 - 3	120.83%	104.17%	110.42%	116%	108%	98.67%	37
CHEM 100	25	148 - 5	112 - 4	124 - 5	136 - 5	127 - 5	98 - 4	123.33%	116.67%	103.33%	108.80%	101.60%	98%	94
CHEM 160	24	20 - 1	28 - 1	16 - 1	26 - 1	28 - 1		83.33%	116.67%	66.67%	104%	112%		
CHEM 200	25	33 - 1	28 - 1	27 - 1	23 - 1	25 - 1	19 - 1	137.50%	116.67%	112.50%	92%	100%	76%	15
CHEM 202	25	14 - 1	27 - 1	16 - 1	19 - 1	15 - 1	12 - 1	58.33%	112.50%	66.67%	76%	60%	48%	
CHEM 204	25		18 - 1						75%					
CHEM 206														
CS 220	24	23 - 1	19 - 1	24 - 1	19 - 1	23 - 1	19 - 1	95.83%	37.50%	100%	79.17%	95.83%	79.17%	
AG/ENVS 110	30	258 - 8	288 - 9	263 - 9	229 - 8	256 - 8	193 - 7	107.5%	107.08%	97.4%	95.42%	106.7%	97.2%	5
GEOG 100	40	87 - 2	137 - 3	134 - 3	137 - 3	132 - 3	121 - 3	108.8%	114.17%	111.67%	114.17%	115%	100.83%	
GEOL 100	35	83 - 2	56 - 2	64 - 2	54 - 2	46 - 2	45 - 2	115.3%	116.67%	133.33%	112.50%	92%	90%	4
GEOL 110	35	155 - 4	167 - 5	158 - 4	132 - 4	108 - 3	88 - 3	110.71%	159.05%	112.86%	188.57%	102.86%	83.81%	2
MATH 190	35	54 - 2	59 - 2	51 - 2	41 - 1	62 - 2	58 - 2	81.43%	84.29%	72.86%	117.14%	88.57%	82.86%	
MATH 192	35	57 - 2	42 - 1	67 - 2	36 - 1	53 - 2	49 - 2	94.29%	120%	95.71%	102.86%	75.71%	70%	
MATH 194	35	33 - 1	41 - 1	34 - 1	31 - 1	21 - 1	23 - 1		117.14%	97.14%	88.57%	60%	65.71%	1
MATH 210	35		31 - 1		37 - 1		24 - 1		88.57%		105.71%		68.57%	
PHSC 110	35	32 - 1	37 - 1	61 - 2	60 - 2	60 - 2	55 - 2	91.43%	105.71%	87.14%	85.71%	100%	78.57%	
PHYS 200	25	24 - 1	24 - 1	20 - 1	24 - 1	20 - 1	21 - 1	100%	100%	83.33%	100%	80%	84%	1
PHYS 202	25	27 - 1		28 - 1		19 - 1		112.50%		116.67%		76%		
PHYS 204	25		30 - 1		29 - 1		23 - 1		125%		120.83%		92%	

GENERAL SCIENCE COURSES - PRODUCTIVITY (FTES/FTEF)

COURSE	FTES						FTEF						Productivity						
	F09	S 10	F 10	S 11	F 11	S 12	F09	S 10	F 10	S 11	F 11	S 12	F09	S 10	F 10	S 11	F 11	S 12	
ANTH 100	15.53	15.42	15.42	16.25	14.40	13.58	0.60	0.60	0.60	0.60	0.60	0.60	25.88	25.70	25.70	27.08	24.00	22.63	
ASTR 100	15.02	14.82	14.91	13.99	13.37	12.03	0.80	0.80	0.80	0.80	0.80	0.80	18.78	18.53	18.64	17.49	16.71	15.04	
BIOL 100	59.46	61.30	54.50	50.41	57.60	47.74	2.7	3.24	2.70	2.43	2.70	2.16	22.02	18.92	20.19	20.74	21.33	22.10	
BIOL 120				7.13						0.27							26.41		
BIOL 122		4.11				5.76		0.27				0.27		15.22				21.33	
BIOL 140		3.50		3.50		2.57		0.20		0.20				17.50			17.50		
BIOL 150		2.88		2.78		1.85		0.20		0.20				14.40			13.90		
BIOL 180	5.55		5.35		5.14		0.27		0.27		0.27		20.56		19.81		19.04		
BIOL 182		4.11		5.14		5.14		0.27		0.27				15.22			19.04		
BIOL 200	15.36	12.62	12.61	13.44	13.72	13.16	0.54	0.54	0.54	0.54	0.54	0.54	28.44	23.37	23.35	24.89	25.41	24.37	
BIOL 202	6.86	6.86	7.13	6.31	7.13	13.16	0.27	0.27	0.27	0.27	0.27	0.54	25.41	25.41	26.41	23.37	26.41	24.37	
BIOL 204	18.10	13.44	13.17	13.44	13.72	13.16	0.54	0.54	0.54	0.54	0.54	0.54	33.52	24.89	24.39	24.89	25.41	24.37	
BIOL 206	7.41	6.31	7.41	6.31	6.31	6.86	0.27	0.27	0.27	0.27	0.27	0.27	27.44	23.37	27.44	23.37	23.37	25.41	
BIOL 220	17.90	15.42	16.35	17.90	16.66	22.83	0.66	0.66	0.66	0.66	0.66	0.99	27.12	23.36	24.77	27.12	25.24	23.06	
CHEM 100	30.45	23.04	25.51	27.98	26.13	20.16	1.35	1.08	1.35	1.35	1.35	1.08	22.56	21.33	18.90	20.73	19.36	18.67	
CHEM 160	4.80	6.72	3.84	6.24	6.72		0.33	0.33	0.33	0.33	0.33		14.55	20.36	11.64	18.91	20.36		
CHEM 200	10.18	8.64	8.33	7.10	7.71	5.86	0.33	0.33	0.33	0.33	0.33	0.33	30.85	26.18	25.24	21.52	23.36	17.76	
CHEM 202	4.32	8.33	4.94	5.86	4.63	3.70	0.33	0.33	0.33	0.33	0.33	0.33	13.09	25.24	14.97	17.76	14.03	11.21	
CHEM 204		5.55						0.33						16.82					
CHEM 206																			
CS 220	4.73	3.91	4.94	3.91	4.73	3.91	0.27	0.27	0.27	0.27	0.27	0.27	17.52	14.48	18.30	14.48	17.52	14.48	
AG/ENVS 110	26.55	29.64	27.05	23.55	26.33	19.85	1.60	1.80	1.80	1.60	1.60	1.40	16.59	16.47	15.03	14.72	16.46	14.18	
GEOG 100	8.95	14.1	13.78	14.09	14.19	12.45	0.40	0.60	0.60	0.60	0.60	0.60	22.38	23.50	22.97	23.48	23.65	20.75	
GEOL 100	17.07	11.52	13.17	11.11	9.46	9.25	0.81	0.54	0.54	0.54	0.54	0.54	21.07	21.33	24.39	20.57	17.52	17.13	
GEOL 110	15.94	17.18	16.25	13.58	11.11	9.05	0.80	1.00	0.80	0.80	0.60	0.60	19.93	17.18	20.31	16.98	18.52	15.08	
MATH 190	9.25	10.12	8.74	7.03	10.63	9.95	0.66	0.66	0.66	0.33	0.66	0.66	14.02	15.33	13.24	21.30	16.11	15.08	
MATH 192	9.78	7.20	11.48	6.17	9.08	8.40	0.66	0.33	0.66	0.33	0.66	0.66	14.82	21.82	17.39	18.70	13.76	12.73	
MATH 194	5.66	7.03	5.83	5.31	3.6	3.94	0.33	0.33	0.33	0.33	0.33	0.33	17.15	21.30	17.67	16.09	10.91	11.94	
MATH 210		5.31		6.34		4.11		0.33		0.33		0.33		16.09			19.21		12.45
PHSC 110	3.29	3.81	6.17	6.17	7.2	5.66	0.2	0.2	0.4	0.4	0.4	0.4	16.45	19.05	15.43	15.43	18.00	14.15	
PHYS 200	5.76	5.76	4.8	5.76	4.8	5.04	0.33	0.33	0.33	0.33	0.33	0.33	17.45	17.45	14.55	17.45	14.55	15.27	
PHYS 202	6.48		6.72		4.56		0.33		0.33		0.33		19.64		20.36		13.82		
PHYS 204		7.2		6.96		5.52		0.33		0.33		0.33		21.82			21.09		16.73

GENERAL SCIENCE COURSES - COMPLETION & SUCCESS RATES

COURSE	Completion Rate						Success Rate					
	F09	S 10	F 10	S 11	F 11	S 12	F09	S 10	F 10	S 11	F 11	S 12
ANTH 100	87.0%	88.0%	87.9%	91.1%	92.6%	92.0%	78.7%	79.7%	60.2%	85.5%	78%	85.4%
ASTR 100	52.0%	56.0%	51.0%	50.0%	62.0%	52.0%	29.0%	26.0%	30.0%	29.0%	31%	29.0%
BIOL 100	89%	90%	92%	94%	94%	94%	75%	78%	85%	89%	87%	84%
BIOL 120				96%						92%		
BIOL 122		93%		74%		81%		87%		35%		81%
BIOL 140		82%		81%		84%		59%		63%		48%
BIOL 150		79%				83%		79%				61%
BIOL 180	70%		62%		72%		63%		54%		68%	
BIOL 182		80%		84%		84%		55%		60%		72%
BIOL 200	80%	70%	72%	76%	64%	81%	77%	63%	57%	57%	52%	65%
BIOL 202	52%	88%	85%	74%	96%	88%	48%	80%	77%	70%	81%	75%
BIOL 204	59%	57%	50%	53%	62%	63%	47%	45%	46%	37%	52%	38%
BIOL 206	70%	61%	63%	74%	65%	80%	63%	61%	44%	65%	61%	66%
BIOL 220	91%	80%	91%	90%	76%	82%	72%	78%	77%	79%	76%	66%
CHEM 100	84%	85%	91%	93%	88%	89%	64%	68%	73%	78%	70%	57%
CHEM 160	80%	89%	100%	96%	96%		60%	68%	100%	81%	82%	
CHEM 200	94%	61%	85%	83%	76%	79%	82%	61%	67%	61%	48%	53%
CHEM 202	93%	63%	75%	100%	67%	83%	79%	44%	69%	74%	47%	83%
CHEM 204		78%						33%				
CHEM 206												
CS 220	78%	84%	75%	79%	65%	89%	52%	63%	54%	68%	43%	84%
AG/ENVS 110	89%	89%	87%	87%	94%	86%	66.0%	60.0%	66.0%	58.0%	69%	63.0%
GEOG 100	72%	79%	78%	72%	76%	85%	53.0%	42%	57%	52%	57%	61.0%
GEOL 100	86%	88%	78%	81%	65%	87%	66%	71%	55%	57%	57%	58%
GEOL 110	82%	77%	76%	83%	77%	73%	59%	52%	43%	46%	48%	48%
MATH 190	76%	83%	92%	88%	94%	74%	61%	63%	61%	51%	87%	66%
MATH 192	81%	50%	81%	67%	74%	98%	54%	43%	54%	50%	43%	86%
MATH 194	85%	68%	85%	87%	95%	96%	52%	56%	79%	81%	57%	96%
MATH 210		74%		95%		100%		68%		84%		96%
PHSC 110	50%	68%	69%	75%	69%	49%	28%	54%	54%	60%	46%	38%
PHYS 200	71%	83%	80%	88%	90%	81%	58%	63%	80%	75%	80%	76%
PHYS 202	78%		89%		95%		78%		86%		84%	
PHYS 204		93%		97%		100%		63%		93%		87%

Recent Enrollment Demand: High Medium Low

Projection for Future Demand : Growing Stable Declining

Opportunity Analysis: (Successes, new curriculum development, alternative delivery mechanisms, interdisciplinary strategies, etc.)

Currently, we only have 1.5 full-time chemistry instructors, with no part-time instructors. We do not offer enough CHEM 100 sections to maintain strong enrollment in CHEM 200 and CHEM 202. With an additional Chemistry instructor, both enrollment and number of sections offered for CHEM 200 and CHEM 202 could increase, giving students more opportunities to take upper-level Chemistry classes.

In addition, we could use two more biology instructors, as we have lost instructors to retirement or advancement. With an additional instructor teaching BIOL 100, and another one teaching anatomy and physiology courses, we would be able to provide students with enough sections of those classes to help them get through this degree quicker (if going the biology route), and to help students get through the science classes to get into the nursing program.

Summary of Program "Health" Evaluation: (Including consideration of size, score, productivity and quality of outcomes)

The General Science program is one of the bigger programs at IVC. The classes that comprise this degree are classes that typically fill above cap. Overall, this is a very productive and healthy program, in terms of the FTES the program generates, the fill rates of the classes, and the number of degrees awarded.

Student Learning Outcomes and Program Learning Outcomes

Student Learning Outcomes Assessment –completion

SLOs for General Science degree classes have been assessed consistently.

Course	# Credits	Fall 2009	Spring 2010	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013
ASTR100	3					1			Lavery
BIOL100	4	1			4		1		Gilison
BIOL120	4								Chien
BIOL122	4						1,2,3,4		
BIOL140	3		1,2,3		2				
BIOL150	3		2		1		3		Gilison
BIOL180	4	1		3		2		1,4	
BIOL182	4				1		4		Morrell
BIOL200	4	old	old	3	3	2	1	4	
BIOL202	4	old	4	2	1	4	3	1	
BIOL204	4	1		3	1	4	4	2	
BIOL206	4	old		4	2	3	1		Morrell
BIOL220	5		2		3		5	1,4	
CHEM100	4	old	old	Yes	1,2,3,4	3		1,3	
CHEM160	5					4,5		1,2,3	
CHEM200	5	old	old	Yes	1,2,3,4,5	1		1,2,3,4,5	
CHEM202	5	old	old	Yes	1,2,3,4,5	3		1,3,4,5	
CHEM204	5		old						
CHEM206	5								
GEOL100	4	1					1	2	
GEOL110	3	old					2	1	
PHSC110	3					2			Lavery
PHYS200	5		old,2,3,4			1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	
PHYS202	5	old,1		old,1,2,3,4		1,2,3,4,5		1,2,3,4,5	
PHYS204	5		2,3		old,2,3,4,5		2,3,4,5		Cozzani
AG/ENVS110	3	1,2,3		1			3		Murray
CS 220	4						1	2	
MATH 190	5	1				1,2		3,4	Bennett
MATH 192	5		3		4	4		4,5	Voldman
MATH 194	5	1					1,2	3	Voldman
MATH 210	5		2				1,2		Voldman

Program Learning Outcomes Assessment

Three (3) PLOs have been identified for the General Science degree, and one was assessed in the 2011-2012 academic year.

Success Rate of Student Learning Outcomes

SLOs for General Science classes are assessed each year the class is offered.

Success Rate of Program Learning Outcomes

Only one of 3 PLOs has been assessed currently, and the other 2 will be assessed this academic year.

Future Goals for Program

1. We can improve this program with the addition of one new chemistry instructor, and two new biology instructors. Unless that happens, there is not much change that would occur with this program. With decreasing enrollment in CHEM 202, we had to cancel the class in Spring 2013.
2. Our plan is to offer two sections of CHEM 200 in the Fall 2013 semester, and then one CHEM 200 and one CHEM 202 in the Spring 2014 semester to help increase enrollment in the CHEM 202 class

Resource Requests

Any Identified Needs: Staffing, Technology, Budget/Planning, Facilities, Professional Development, Marketing

- Staffing: 1 Chemistry instructor, approximately \$80,000/year. We have been requesting this every year during APR and for CPR. A new Chemistry instructor is critical to help students get through CHEM 100, which is a prerequisite for chemistry classes (CHEM 200, 202, 204, 206 – in which enrollment has been declining), and is also a prerequisite for BIOL 200, 202, 206, and 220, which are the upper-level anatomy and physiology, and microbiology, classes that are needed for students to get into the nursing program.
- Staffing: 1 Biology instructor, approximately \$80,000/year. We have been requesting this every year during APR and for CPR. This position is critical for students to take BIOL 100, which is a prerequisite for upper-level biology classes that are needed for students to get into the nursing program.
- Staffing: 1 Anatomy & Physiology instructor, approximately \$80,000/year. We have been requesting this every year during APR and for CPR. This position is critical for students to get into the nursing program as we are not offering enough sections of BIOL 200, 202, 204 or 206.
- Budget: Twelve (12) dissecting microscopes, \$216 each (\$25,920 total). For various biology classes. The ones we currently have are very old and do not work well